

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln No.: 10/736,037

Confirmation No. 4023

Filed: December 15, 2003

Applicants: Kincaid et al.

Title: Edible Spread Composition  
and Packaged Product

Art Unit: 1794

Examiner: Carolyn A. Paden

Attorney Docket: 1410-77005

Customer No.: 48940

This Declaration was electronically  
filed on April 25, 2008 using the  
USPTO's EFS-Web.

Mail Stop AMENDMENT  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

**DECLARATION OF CARRIE M. KINCAID UNDER 37 C.F.R. § 1.132**

Dear Sir or Madam:

I, CARRIE M. KINCAID, pursuant to 37 C.F.R. §1.132, hereby declare  
and state as follows:

1. I am a co-inventor of the subject matter claimed in the above-identified application and currently work in a technology area closely related to the subject matter of the above-identified application.
2. I am employed by Kraft Foods ("Kraft") as a Senior Scientist in the Oscar Mayer Growth Department. My current responsibilities include developing formulations, managing microbial concerns, and developing processes for Kraft products globally.

3. I have over 6 years of experience in developing food products, with over 5 years experience in Cheese and Dairy, and my educational background comprises of a B.S. in Food Science from The Ohio State University.

4. I have reviewed the application, the Office Action mailed October 25, 2007, and the primary prior art references Bower (U.S. Patent No. 3,366,494) and Musser (U.S. Patent No. 2,883,286) cited by the Examiner. In addition, I am very familiar with the technology involved in the application in general, and the state of the art in that technology.

5. The presently claimed invention is directed to an edible spread composition containing peanut butter and oil and packaged in a pressurized container without experiencing unacceptable separation of oil from the peanut butter upon storage. The edible spread composition comprises about 10-45% peanut butter, 0.5-10% oil, 10-60% water, and enough emulsifier to prevent the oil from separating from the mixture while stored under positive pressure in the container and having a density greater than about 1.05 g/ml when discharged from the pressurized container.

6. I conducted experiments utilizing the methods and ingredients set out in Bower and Musser, substituting peanut butter for chocolate in the Musser reference and adding peanut butter to the Bower reference and then packaging in a pressurized can. I also made a sample utilizing the method and ingredients as set out in our patent application for peanut butter. The Bower and Musser formulas were made to contain about 35% and 25% peanut butter and were then placed in a can under positive pressure (about 100 psi). These samples were compared to our inventive peanut butter spread composition containing about 40% peanut butter and similarly placed in a can under positive pressure. All of the canned samples were then stored for 46 days at room temperature. The ingredients, amounts, and methods used, as well as the result obtained, are provided in the following attachment to the declaration: The Exhibits in this attachment are hereby incorporated by reference. It is my understanding that all or a portion of the exhibits were shown to the Examiner at the interview held on February 19, 2008 with our parties' attorney.

7. A 40% peanut butter sample comprising our formulation was tested, rather than a higher or lower amount, because that is the amount that we will most likely

commercialize. The 40% sample shows that the higher amount of peanut butter was stable and successful. Accordingly, lower amounts of peanut butter would also show successful results since it is essentially easier to make a lower amount peanut butter sample.

8. The Bower samples (see attachment, Bower Formula) were prepared using the ingredients as outlined in Example 1 of the Bower patent with the addition of peanut butter, and specifically the Bower patent discloses using water, microcrystalline cellulose (MCC), vegetable oil (i.e., edible oil), sodium stearoyl lactylate (equivalent to glyceryl lactostearate), polyoxyethylene sorbitan monooleate (i.e., Polysorbate 80), and raspberry puree. The octafluorocyclobutane (i.e., aerosol propellant) was not included in the product makeup, since we use a separate pressurized air chamber where the propellant does not interact with the product. The edible oil was in the amount of about 5%, water was at least 10% (and actually was greater if the water from the MCC solution and the raspberry puree are included), and the peanut butter was included at 25% and 35%; both were made within our claimed ranges (i.e., 0.5-10% edible oil, 10-60% water, and 10-45% peanut butter). The method outlined in Bower for preparing its samples was followed in preparing these experimental samples.

9. The Musser samples (see attachment, Musser Formula) were prepared using the ingredients as outlined in the Musser patent and in particular at columns 1-6, with the substitution of peanut butter for the chocolate component, and specifically the Musser patent discloses using a stabilizer (i.e., a protein), milk solids (i.e., milk protein concentrate, or "MPC"), liquid whole milk, sugar, and an emulsifier (i.e., lecithin). The edible oil comprised MPC, and the peanut butter was prepared at 25% and 35%; both were made within our claimed ranges of the edible oil and peanut butter (i.e., 0.5-10% edible oil and 10-45% peanut butter). The method outlined in Musser for preparing its samples was followed in preparing these experimental samples.

10. Our samples (see attachment, Inventive Formula) were prepared as outlined in Example 1 of our specification except that sodium alginate, titanium dioxide slurry, polysorbate 60, caramel color, and peanut flavor were not utilized. The edible oil was approximately 2.5%, water was about 40%, and the peanut butter was prepared at 40%; all within our claimed ranges (i.e., 0.5-10% edible oil, 10-60% water, and 10-45%

peanut butter). The method in Example 1 was followed in preparing these experimental samples.

11. When performing the tests and observing the results, a sample was viewed as having a passing result if the following criteria was met: (1) the dispensed product closely resembled a traditional peanut butter product; (2) there was no oil separation upon discharge from the pressurized can; (3) there was no sheen of the product upon discharge; and (4) there was no oil leaking out of the can nozzle.

12. The results of the Bower samples showed that all of the dispensed peanut butter samples were loose and runny with a high sheen and unpleasant color. The samples all appeared to be foamy even though there was not propellant directly injected into the product. Foam is an undesirable texture since it is very dissimilar to commercial peanut butter. At 25% peanut butter, the Bower sample had oil separation in the product as it was first dispensed from the can and then the remaining stream had a very high sheen. (See attachment, 25% Bower samples). Additionally, after 46 days the 25% Bower sample exhibited jam and product leaking out of the can nozzle even before product was dispensed from the can. At 35% peanut butter, the Bower sample had visible oil separation when dispensed from the can. (See attachment, 35% Bower samples). Although the Bower sample was prepared such that the peanut butter was added to compliment the raspberry puree, as suggested by the Examiner in the Office Action on page 6 (i.e., the peanut butter incorporated into the fruit whip of Bowers would "provide a new peanut butter and jelly flavor to the fruit whip), it would be expected that if the puree had been left out of the formulation and was substituted by the peanut butter that the results obtained above would have been similar and the sample would likewise have failed.

13. The results of the Musser samples showed that all of the dispensed samples were clearly not homogeneous mixtures. At 25% peanut butter, the Musser sample was extremely liquid so it was difficult to observe if separation of the oil had occurred upon dispensing. (See attachment, 25% Musser samples). However, the sample was clearly not uniform in its appearance which would indicate oil separation. Additionally, the stream dispensed at 46 days from the container (stored at room temperature for 46 days) had visible mold growth; the sample dispensed at 6 days did



not have visible mold in the dispensed stream. Traditionally, it has been difficult to produce a product stable to microbial growth when combining water and peanut butter, and this is evident in the 25% sample after 46 days of storage. At 35% peanut butter, the Musser sample had visible oil separation when it was dispensed and was also very runny. (See attachment, 35% Musser samples). The samples at both 25% and 35% peanut butter were very shiny and much too runny; the samples would not stay on a cracker if discharged onto one, as is typically a desirable use of our product.

14. In comparison, the Inventive formula at 40% peanut butter was very stable, with no sheen and no oil separation visible. (See attachment, Inventive samples). The Inventive sample had no visible microbial growth throughout the test period (i.e., 46 days). The Inventive sample was the only one of all the experimental samples that actually looked like traditional, commercially sold peanut butter when it was dispensed, such that it had both the proper thickness and "stickiness" of commercially-sold peanut butter, which is a key factor to consumer acceptance. The Inventive sample was the only sample that was not shiny, that appears homogeneous and opaque and had no oil separation.

15. Therefore, every sample of the Bower and Musser peanut butter exhibited high sheen and/or clear oil separation upon dispensing. Samples exhibiting high sheen failures and/or oil separation were considered as failures during the development of our invention. Overall, the Musser and Bower samples were less stable than the Inventive sample and were unacceptable in the final consistency of the dispensed product as far as consumer acceptance.

16. Traditionally, peanut butter is a much harder product to keep stable than any of the other food components disclosed in either Bower or Musser. We believe that we have found a unique combination of peanut butter, oil and other components to deliver a texture and appearance that is very similar to commercial peanut butter, as well as reducing oil separation of the product while stored under pressure, which is an important factor to being able to market such a product to consumers. The results proved that the Bower and Musser peanut butter samples were not stable, were not resistant to oil separation when stored in pressurized containers and they did not clearly resemble a traditional, or commercial, peanut butter product when dispensed.

17. In view of the foregoing, one of ordinary skill in the art would reasonably expect that following the steps and ingredients disclosed in Bower and/or Musser would result in an unacceptable edible spread composition peanut butter product, even if peanut butter was substituted for or added to the substrates used in these prior art documents. This is also supported by the test results presented above, at paragraph nos. 12-14, which clearly show that the Bower and Musser products are inferior products and do not function as, nor provide, an acceptable peanut butter product as the Inventive samples.

The undersigned, being warned that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. §1001) and may jeopardize the validity of the application or any patent issuing thereon, hereby declares that the above statements made of my own knowledge are true and that all statements made on information and belief are believed to be true.

Date: 4/23/08

  
Carrie M. Kincaid

ATTACHMENT TO DECLARATION OF  
CARRIE M. KINCAID

Application No. 10/736,037  
Attorney Docket: 1410-77005

# Bower Formula

# Bower Formula and Procedure

## Part 1

| MCC solution | %  |
|--------------|----|
| MCC          | 20 |
| Water        | 80 |

Mix for 10 minutes, no heat

| Emulsion           | %    | g   |
|--------------------|------|-----|
| Lard (92 deg F MP) | 23.5 | 470 |
| SSL                | 4.5  | 90  |
| Polysorbate 80     | 0.5  | 10  |
| Water              | 46.5 | 930 |
| MCC solution       | 25   | 500 |

# Bower Formula and Procedure

## Part 2

Final Formula

| Ingredients     | 25% Bower (%) | 35% Bower (%) |
|-----------------|---------------|---------------|
| Emulsion        | 20            | 20            |
| Peanut Butter   | 25            | 35            |
| raspberry puree | 55            | 45            |

100 100

Instructions:

1) In one mixer, combine MCC and water for the MCC solution. Mix for 10 minutes with no heat. 2) In a separate mixer, melt the oil, SSL, and polysorbate 80 together. 3) Add water and MCC solution to the mixer and heat to 100 deg F. 4) Homogenize mixture at 1000 psi. 5) Combine the emulsion with the different amounts of peanut butter and raspberry puree. 6) Fill into cans (minimum 5) and pressurize.

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# Musser Formula

# Musser Formula and Procedure

| Ingredients   | 25% Musser |     | 35% Musser |       |
|---------------|------------|-----|------------|-------|
|               | %          | g   | %          | g     |
| WPC 80        | 1.6        | 32  | 1.34       | 26.8  |
| MPC 70        | 10.4       | 208 | 8.66       | 173.2 |
| Whole Milk    | 41         | 820 | 33         | 660   |
| Sugar         | 20         | 400 | 20         | 400   |
| Peanut Butter | 25         | 500 | 35         | 700   |
| Lecithin      | 2          | 40  | 2          | 40    |

100                      2000                      100                      2000

## Instructions:

- 1) Mix the WPC80, MPC 70, and sugar with the whole milk until dissolved (no heat).
- 2) In a separate mixer, mix the peanut butter and the lecithin until dissolved (no heat)
- 3) Add the milk/protein/sugar mix to the peanut butter mix and mix together 10 minutes.
- 4) Fill into cans (minimum 5) and pressurize to ~100 psi.

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# Inventive Formula

# Inventive Formula

| Ingredients   | 40% Inventive Formula (%) |
|---------------|---------------------------|
| Water         | 40.11                     |
| MPC 70        | 7.37                      |
| WPC80         | 1.16                      |
| salt          | 0.46                      |
| sugar         | 8                         |
| sorbic acid   | 0.3                       |
| Panodan       | 0.1                       |
| Oil           | 2.5                       |
| Peanut Butter | 40                        |

100

# Inventive Formula Procedure

- 1) Create a wet mix of the WPC, MPC, and Water.
- 2) Add the salt and panodan.
- 3) Add the peanut butter and sugar.
- 4) Heat to 150 deg F
- 5) Add the peanut oil
- 6) heat to 188 deg F and hold 1 min.
- 7) Fill into cans (minimum 5) and pressurize.

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25% Bower Samples:

Photo results at days 3, 5, and 46

# Bower 25% Day 3



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# Bower 25% Day 5



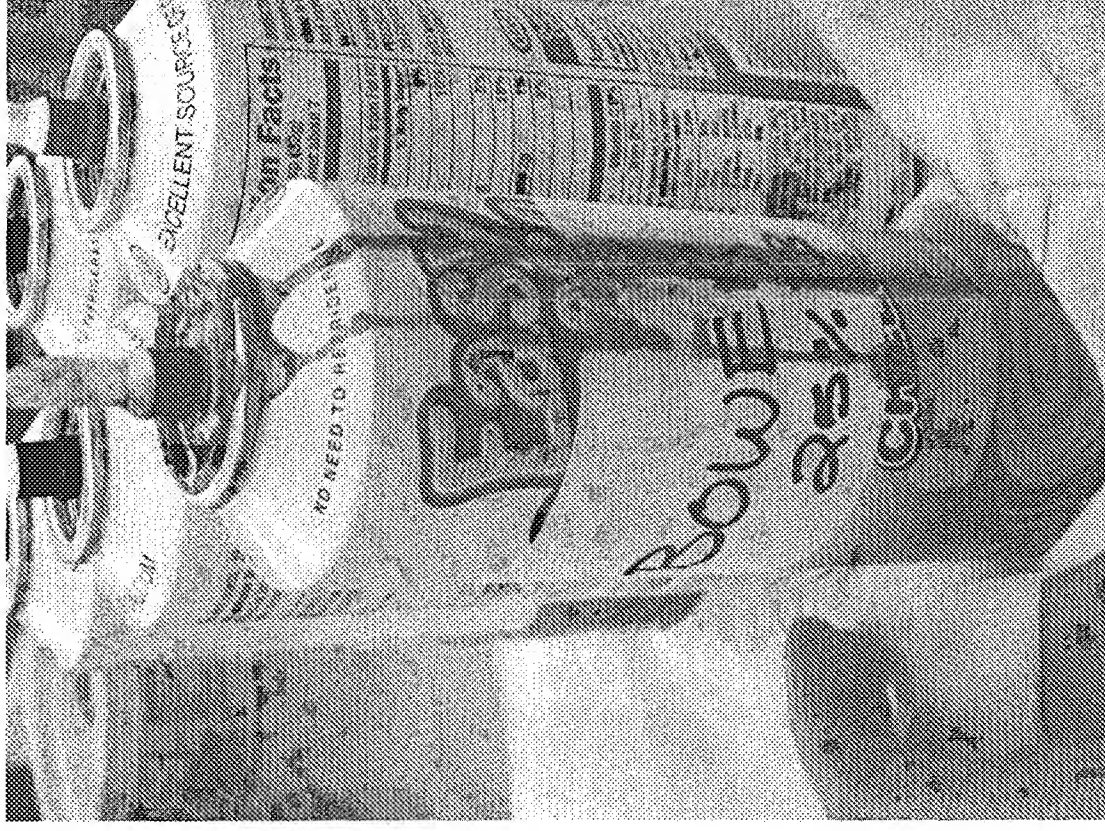
oil

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# Bower 25% - 46 days

Jam  
leaking  
out and  
down  
sides of  
can



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35% Bower Samples:

Photo results at days 3, 5, and 46



# Bower 35% Day 3



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# Bower 35% Day 5

Slight oil  
separation  
at edges



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# Bower 35% Day 46

Unstable  
foam  
formed,  
product very  
shiny and  
not  
appetizing in  
appearance



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## 25% Musser Samples:

Photo results at days 3, 6, and 46

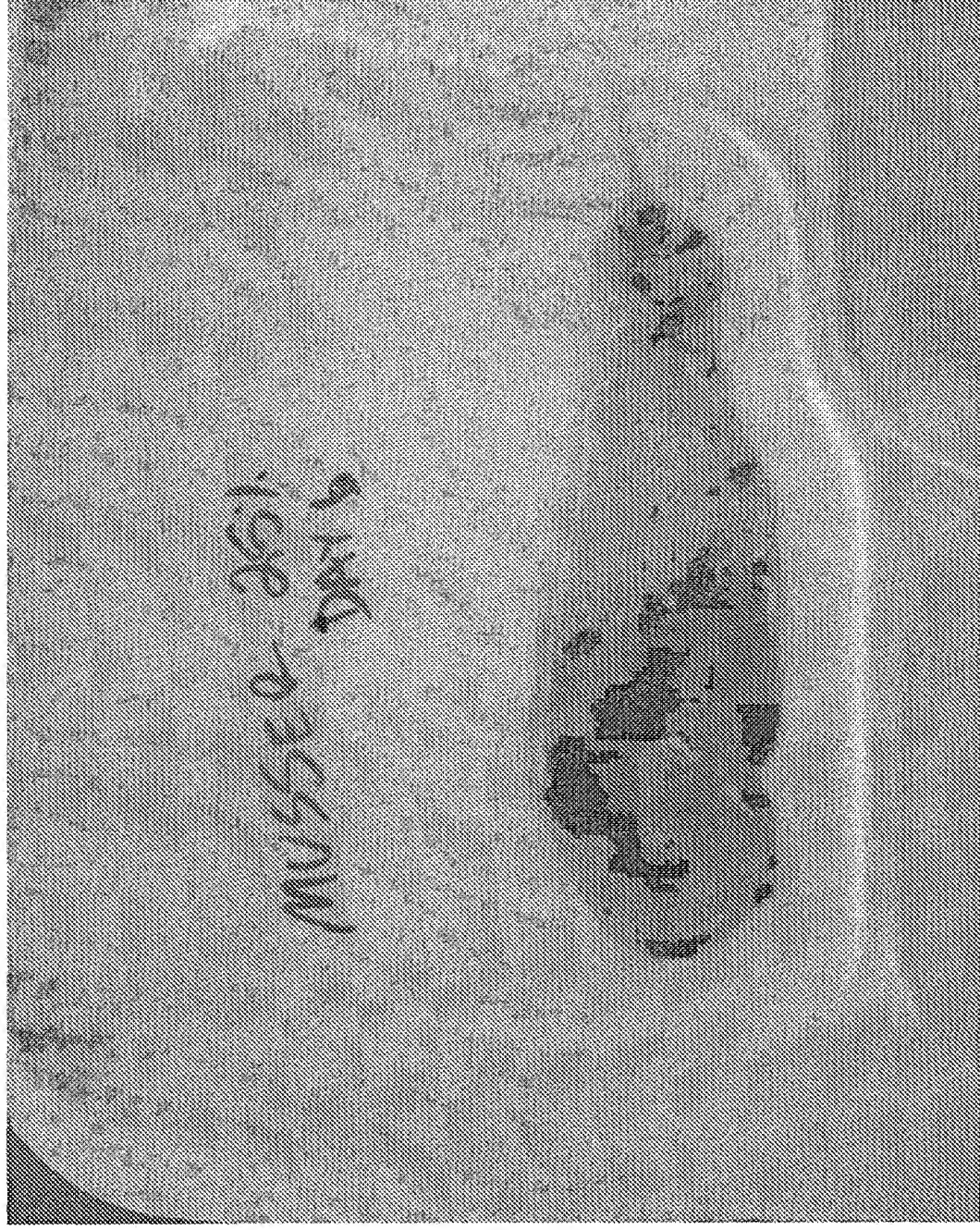
# Musser 25% Day 3



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# Musser 25% Day 6



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# Musser 25% Day 46

Mold  
growth  
evident  
within  
product



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## 35% Musser Samples:

Photo results at days 3, 6, and 46



# Musser 35% Day 3



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# Musser 35% Day 6



Application No.  
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# Musser 35% Day 46

Oil  
separation  
visible

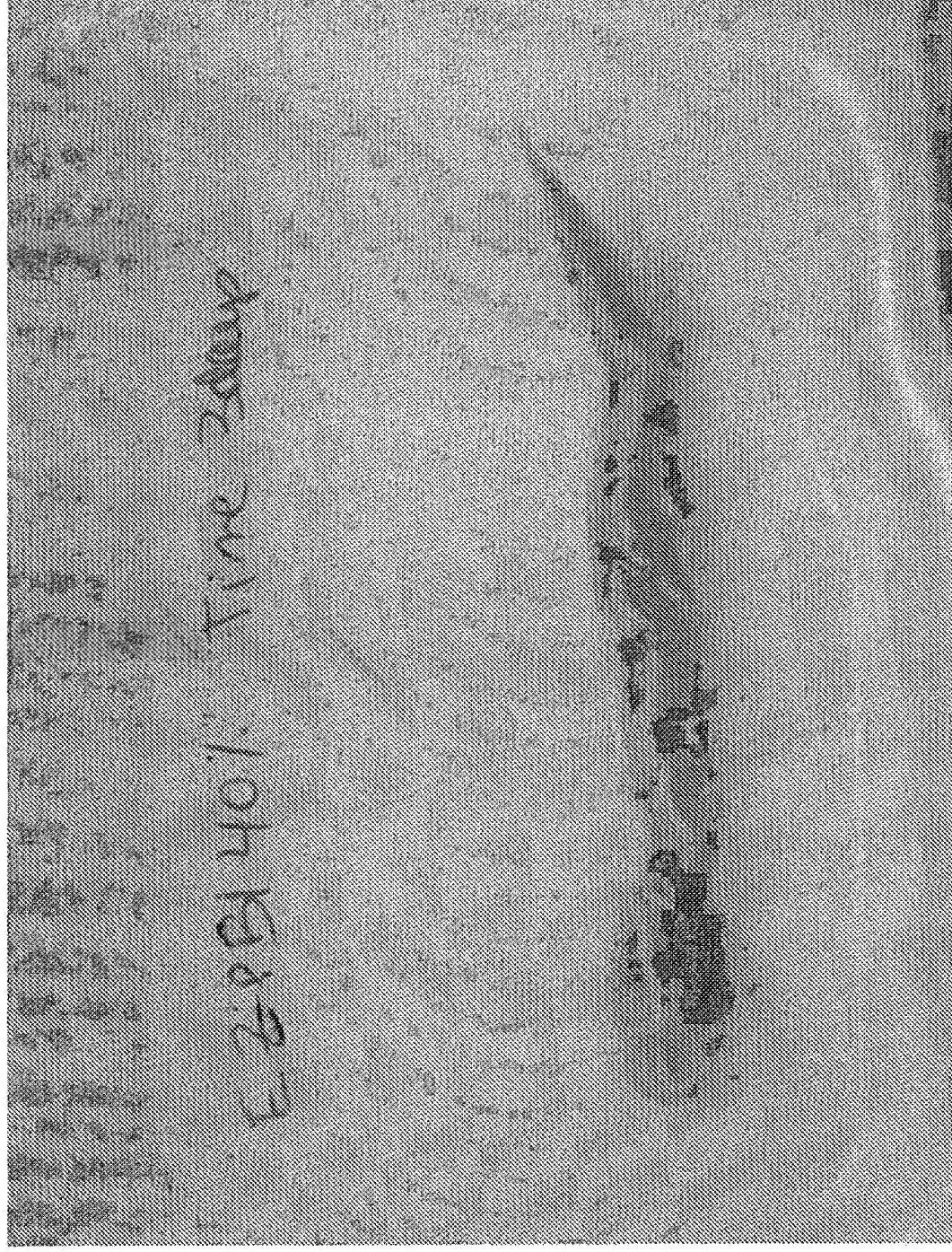


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## 40% Inventive Samples:

Photo results at days 3, 6, and 46

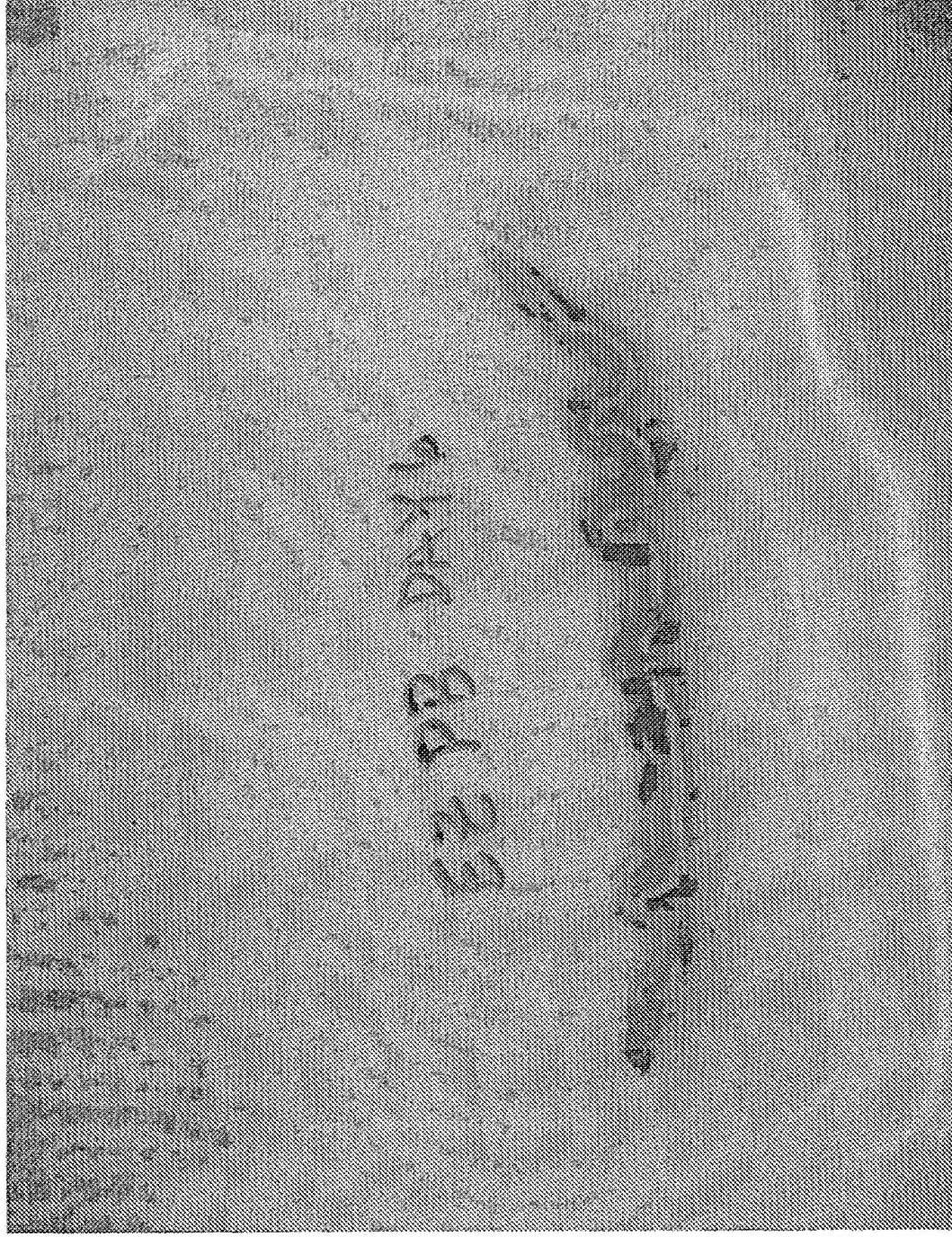
# Inventive Sample Day 3



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# Inventive Sample Day 6



Application No.  
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# Inventive Sample Day 46



Good  
texture and  
appearance  
similar to  
regular  
peanut  
butter  
maintained;  
product not  
shiny and  
no oil  
separation

Application No.  
10/736,037